The Revolutionary Role of Mobile Devices in the Global Economy

August 2016
WHO ARE WE?

Payden & Rygel is one of the largest privately-owned global investment advisers. Founded in 1983, we are a leader in the active management of equity and fixed income portfolios, through domestic and international solutions. Advising the world’s leading institutions and individual investors, we provide strong performance and real-world strategy on the global economy and capital markets.

Advising the World’s Leading Institutions and Individual Investors

LOS ANGELES | BOSTON | LONDON | PARIS

$100 BILLION AUM
23 ACCOUNTS OVER $1 BILLION
350 CLIENT RELATIONSHIPS
25 YEARS AVERAGE TENURE OF MANAGEMENT TEAM
$200-400 MILLION AVERAGE ACCOUNT SIZE
200 EMPLOYEES

IN THE NEWS

#1 Ranked Fund
Payden Equity Income Fund in WSJ Large-Cap Value Category Kings
(for the 1 year period ending June 30, 2016) Disclosure
OUR QUARTERLY PUBLICATION

Payden & Rygel
Point of View
SPRING 2016
Our Perspective on Issues Affecting Global Financial Markets

Pg 1 HUMAN, ECONOMY AND PET: HOW PETS ARE CHANGING HUMANS AND THE ECONOMY
US consumers spend more on Spot and Garfield than they do on automobile insurance. That’s right. We detail the rise of pet spending and what it tells us about the American standard of living and retail marketplace.

Pg 4 FROM WHALE OIL TO OIL CHANGE: PRODUCTIVITY TRUMPS EVERYTHING
In 1850, New Bedford, Massachusetts, was the richest city in the world. In 1960, Detroit, Michigan, boasted the highest per capita income in the US. The tale of two cities and two industries (whale oil in one, motor oil in the other) is the topic at hand. For a time each commanded an unassailable market position. But the good times weren’t eternal. Here follows the story of why and how.

Pg 9 ANATOMY OF THE SMARTPHONE: A USER MANUAL FOR ITS ROLE IN THE GLOBAL ECONOMY
Most people can’t imagine life without their smartphones. But, in many parts of the world, smartphones are far more than mere luxury items. For users in developing nations, where most of the future smartphones will be sold, the “mobile internet” is the internet. The availability of mobile web and computing will continue to revolutionize world commerce more than any other technology in history.

Pg 10 MONETARY POLICY UNMASKED: OUR TAKE ON NEGATIVE INTEREST RATES
With four European central banks and one Asian central bank using NIRP (or “negative interest rate policy”), economics textbooks that teach that interest rates can’t go below zero are out of date. What did our professors get wrong, where is the real floor on interest rates and what does it all mean? (oh, and why did I have to pay $120 for that relic of a textbook?) We inquire.
WHEN IS SOMETHING REVOLUTIONARY?

- Widely-adopted
- Alters the structure of production and employment
- Creates platform for previously unexpected products/services

Steamp Engine | Airplane | Intermodal Container
---|---|---
1776 | 1903 | 1955
THIS IS NOT REVOLUTIONARY... circa 1988

https://www.youtube.com/watch?v=rWfqkrAM8IY
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PAYDEN.COM
SMARTPHONES WIDELY ADOPTED IN THE U.S. IN JUST 8 YEARS

Years To Go From 10% to 90% Adoption Rate By Household

- Car: 75 years
- Stove: 58 years
- Microwave: 27 years
- Radio: 23 years
- Internet: 20 years
- Color TV: 20 years
- Cellphone: 14 years
- Smartphone: 8 years

Source: Asymco
THE SMARTPHONE IS QUICKLY BECOMING THE MOST ADOPTED DEVICE ON THE PLANET

- Smartphone subscriptions are expected to double by 2021.
- From 3.4 billion today to 6.4 billion.

Smartphone Subscriptions to be Added by 2021

- **Asia Pacific**: 1,580m
- **Middle East & Africa**: 740m
- **Latin America**: 270m
- **Central/Eastern Europe**: 200m
- **Western Europe**: 130m
- **North America**: 130m

**Source**: Ericsson Mobility Report

*Most subscriptions will be added in developing countries*
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THE SMARTPHONE DISRUPTS INDUSTRIES

Number of Employees – Polaroid, 1978 and Instagram, 2012

21,000

1978 - Polaroid

13

2012 - Instagram

Sources: Boston University and Wired.com
How many items have been subsumed by your phone?

- Photo Albums
- Physical Gift Cards
- iPod/MP3 Player
- Phone Book
- Computer System
- GPS
- Boarding Passes
- Camcorder
- Pager
- Diary/Calendars
- Clock Radio
- Compass
- Calculator
- Weather Report
- Cellphone
- CD Player
- Flashlight
- Camera
- Voice Recorder
- Speed Dial Phone
NEARLY A MONTH OF WORK...FOR WHAT?

Average worker would have to work **125 hours** in 1988 to afford this phone.

Today, the average worker needs to work less than **6 hours for a smartphone**.*

*Based on a smartphone that retails for $120 (HTC Desire, LG K4 or Microsoft Lumia on the Verizon Store on 8-17-2016).
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Steam Engine 1776  
Airplane 1903  
Intermodal Container 1955
UNEXPECTED USE #1
WHETHER INDIA OR UNITED STATES, YOU USE YOUR SMARTPHONE TO GET FROM POINT A TO B
UNEXPECTED USE #2
Pokémon GO!

Camera
+ GPS
+ Large Display
+ Data Connectivity
+ $ transaction ability =

93% Increase in Nintendo’s stock price since the release of Pokémon Go
WHEN IS SOMETHING REVOLUTIONARY?

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- Alters the structure of production and employment ✓
- Creates platform for previously unexpected products/services ✓

Steam Engine 1776
Airplane 1903
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QUESTIONS?